Partnering to Promote Opioid Stewardship
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Today’s Objectives
• Discuss the US Opioid epidemic as it relates to our state, health systems & the communities we serve
• Assess compliance with Opioid prescribing guidelines
• Evaluate recent relevant literature
• Review AR Act 820 & Regulation 41
• Address barriers to guideline compliance
• Problem solve to promote high quality, safe and standardized care
• Review AR Naloxone Protocol
Disclosure

None of the Speakers have any conflicts of interest to disclose.

Opioid Use Disorder – A National Epidemic

Every day in the US....

- Over 650,000 Opioid Rx are dispensed
- Over 1,000 people are treated in EDs for misusing prescription opioids
- 91 people die from an opioid-related overdose
- Annual direct & indirect costs for non-medical use of Rx opioids = $53.4B
- Arkansas statistics are of equal concern

June 5, 2017 NY Times: “Drug overdoses are now the leading cause of death among Americans under 50.”
Opioid Use Disorder – A National Epidemic

Every day in Arkansas....

- Our hospitals treat those affected - from overdose in the ED to newborns with neonatal abstinence syndrome
- We have the 2nd highest Opioid prescribing rate in the U.S.
- 2016 AR prescribing rate = 114.6 vs US average of 66.5 Rx per 100 persons
- In 2013, AR had the highest rate of teen Rx drug abuse in the country
- In 2012, AR had the 8th highest rate of opioid overdose in the country

Opioid Use Disorder – In Arkansas

Hydrocodone Pills Dispensed Per Person by AR county in 2016

Oxycodone Pills Dispensed Per Person by AR county in 2016
Opioid Use Disorder – In Arkansas

Hospitalizations Attributable to Drugs by County in Arkansas

Hospitalization Trend Line
- Statewide Average = 83/100k
- Top 5 Counties = 173/100k (double)

Scope of the Problem – Number Living with Chronic Pain

Prevalence of U.S. Patients with Pain
- 11.2% of adult U.S. population experience chronic pain
- 42% experience pain every day
- Pain related problems account for up to 80% of visits to physicians

In the United States, chronic pain affects more people than diabetes, heart disease, and cancer combined.

Enough opioids were dispensed in AR for every person >18yrs to take 2 – 6 mg Morphine per day for a year.
Scope of the Problem – Morbidity & Mortality

Increases in Rx opioids coincide with increases in Rx opioid overdose deaths

Prescribing & Use Trends contributing to Increased Morbidity & Mortality

- Prescribing for conditions not likely to benefit from opioids
- High dose prescribing
- Longer duration
- Opioid & Benzo combination
- Multiple providers/multiple pharmacies
- High volume prescribers


Scope of the Problem – Who is at Risk of Overdose?

- Opioid Rx plus any of the following:
  - Respiratory disease (COPD, asthma, sleep apnea, smoking)
  - Renal or hepatic disease
  - Concurrent antidepressant, benzodiazepine, or alcohol use
  - Difficulty accessing medical care
- History of substance use disorder
- Methadone prescription
- Recent release from correctional, hospital or rehabilitation facility
  - Switching between multiple opioid medications
- High-dose opioid prescription
  - > 90 mg/day morphine equivalence
- Household members of people in possession of opioids

http://www.who.int/substance_abuse/information-sheet/en/
Opioid Prescribing Epidemic – How we got here...

**Opioid Use Trends**

1. **1996**
   - Pharmacists published results from a 30-month study demonstrating safety of opioid prescribing in Tennessee. (Pain 1996)
   - FDA approves Purdue Pharma's OxyContin for sales
   - Medicare lawyer's report of widespread use of opioids for long-term pain management. (Journal of the American Medical Association)

2. **1998**
   - Pharmacists publish results from a 5-year study demonstrating opioid prescribing patterns in office and hospital settings. (Pain 1998)

3. **2002**
   - Congress passes the "Marino Bill" to address the opioid epidemic. (Pain 2002)

4. **2014**
   - Pain management guidelines published by the American Pain Society. (Pain Management 2014)
   - Opioid prescribing guidelines published by the Journal of the American Medical Association. (JAMA 2014)

5. **2016**
   - Pain management guidelines published by the American Pain Society. (Pain Management 2016)
   - Opioid prescription guidelines published by the American Medical Association. (JAMA 2016)

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**Sources of Prescription Painkillers Among Past-Year Non-Medical Users**

- **Family & Friends** (not drug dealers) are the primary source of abused prescription drugs.

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**Emergency Department Referral Data**

Emergency Department Referral Data in Greater Little Rock: 2011-2015

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**Baptist Health Physician Partners**
Opioid Prescribing Epidemic – How we help...

Educate Patients on Proper Drug Storage & Disposal – AR Drug Take Back

Drug Take Back – Quantity in Pounds

<table>
<thead>
<tr>
<th>Month</th>
<th>Quantity</th>
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<tr>
<td>Sep '10</td>
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<tr>
<td>Sep '11</td>
<td>6,621</td>
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<tr>
<td>Sep '12</td>
<td>10,556</td>
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<td>11,734</td>
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<td>18,764</td>
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<td>22,373</td>
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<td>Apr '17</td>
<td>20,020</td>
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<td>Oct '17</td>
<td>23,870</td>
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<td>25,289</td>
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<td>Apr '18</td>
<td>23,434</td>
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<tr>
<td>Apr '18</td>
<td>24,683</td>
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</table>

Illegal users consume as much as 71% of legitimately prescribed opioids

http://www.artakeback.org/search-collection-sites

AR has 163 permanent take back sites

If Take Back not a viable option, instruct on proper disposal.

Discourage storing unused meds.
Opioid Prescribing Epidemic – How we help...

Pharmacy Rx Drug Losses – Form 106 Totals for Arkansas

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<tbody>
<tr>
<td>Alprazolam</td>
<td>73,633</td>
<td>42,953</td>
<td>9,844</td>
<td>8,323</td>
<td>24,935</td>
<td>29,986</td>
<td>12,253</td>
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<tr>
<td>Hydrocodone</td>
<td>459,276</td>
<td>213,639</td>
<td>103,988</td>
<td>128,864</td>
<td>196,027</td>
<td>131,870</td>
<td>243,577</td>
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<tr>
<td>Oxycodone</td>
<td>16,538</td>
<td>32,422</td>
<td>18,448</td>
<td>28,336</td>
<td>65,163</td>
<td>74,555</td>
<td>108,639</td>
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<tr>
<td>Codeine</td>
<td>4,005</td>
<td>8,878</td>
<td>3,726</td>
<td>44,878</td>
<td>16,345</td>
<td>7,485 tabs 104,317ml</td>
<td>4,358 Tabs 89,857ml</td>
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- Proper Storage: Hospitals require double lock; Retail may lock up or disperse in inventory
- Limit access to controlled substances
- Perpetual Inventory – Must be checked to actually be effective

Opioid Prescribing Epidemic – How we help...

Educate patients, their family, and the public...

- On Realistic Expectations
  - Few people have their pain completely relieved
  - Primary tx goal should be to improve functionality
  - Opioids should be considered adjunctive treatment at best
  - The average pain relief with opioids is 1-2 points on a 10-point scale vs placebo

- On Risks of Long-term Opioid Use
  - Possible addiction - Impaired driving - Depression - Worsening Pain
  - Vomiting - Constipation - Low testosterone
  - Mental confusion - Overdose - Death

- On More Effective Treatments
  - Exercise therapy
  - Cognitive behavioral therapy
  - Interdisciplinary rehab
  - Coping skills
Managing Chronic Pain Effectively

• Does NOT require Opioid treatment
• Must consider & address factors affecting perception of pain
  • Feeling of loneliness – Shown to decrease the pain threshold
  • Depression / Anxiety
  • Sleep disturbance
  • Increased healthcare needs
  • Focusing attention on pain
  • Coping skills
• These factors can make pain worse

American Academy of Emergency Medicine

Conditions that do NOT require Opioid Therapy:
• Back Pain (acute or chronic)
• Routine Dental Pain
• Migraines
• Chronic Abdominal Pain
• Pelvic Pain
• Gastroparesis
### 2015 AR ED Opioid Prescribing Guidelines

1. One provider for all opioid Rxs
2. Avoid IV/IM opioids for acute exacerbation of chronic pain
3. ED should not provide replacement opioid Rx
4. Nor replacement methadone Rx
5. ER/LA opioids should not be prescribed from ED
6. EDs encouraged to use AR PMP
7. Physicians should send pt pain agreements to local EDs
8. Rx from ED should state pt required to present picture ID to pharmacy filling script
9. Photograph pts w/out govt issued ID who present for pain treatment
10. Coordinate care of pts who frequently visit ED
11. Maintain a list of primary care clinics for patients of all payer types
12. Provide screening, brief intervention, and tx referrals when suspect opiate abuse problems
13. Meperidine is discouraged
14. Limit duration of chronic pain Rx until primary opioid prescriber can be seen
15. Limit opioid Rx for acute injuries to not exceed 30 pills
16. Screen for substance abuse prior to opioid Rx for acute pain
17. Law requires evaluation of pain, but does not require use of opioids to treat

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### 2016 CDC Opioid Prescribing Guidelines for Chronic Pain

1. Nondrug & non-opioids first
2. Establish realistic treatment goals
3. Discuss risk & realistic benefits of opioids
4. Use IR vs ER/LA
5. Lowest effective dose
   - Caution when \( \geq 50 \) MME/day
   - Carefully justify/avoid \( \geq 90 \) MME/day
6. Limit duration for acute pain treatment
   - \( \leq 3 \) days often sufficient
   - \( >7 \) days rarely needed
7. Evaluate benefit & harm w/in 1-4 wks of starting; taper off when benefit < risk of harm
8. Evaluate risk factors for opioid-related harms
9. Review AR PMP data when starting & during tx
10. Use urine drug testing
11. Avoid opioids & benzos
12. Monitor patients for signs of opioid use disorder and arrange treatment if needed.
Higher Dosage = Higher Risk

Approximate 50 MM Oral Equivalent/Day

- Hydrocodone/APAP 10 mg x 5 tabs
- Oxycodone/APAP 10 mg x 3 tabs
- Oxycodone ER 15 mg x 2 tabs
- Methadone* 5 mg x 3 tabs
- Hydromorphone 4 mg x 3 tabs

A Health System’s Approach to Opioid Stewardship
Keep issue top of mind - Ongoing Provider Information

Recent relevant publications...

- Jan 2017 - CMS Opioid Misuse Strategy
- Opioid-Prescribing Patterns of ED Physicians & Risk of Long-Term Use; *NEJM Feb 2017*
- Opioid vs nonopioid analgesic for acute extremity pain in ED; *JAMA Nov 2017*
- Characteristics of Initial Prescription Episodes & Likelihood of Long-Term Opioid Use – US, 2006-2015; *MMWR Mar 2017*
- An educational intervention decreases opioid prescribing after general surgical operations; *Ann of Surgery, Mar 2017*
- Opioid Oversupply Common After Surgery – *American Pain Society May 2017*
- Patient reported opioid requirements after elective hernia repair – A call for procedure-specific opioid administration strategies – *Surgery, June 2017*
CMS Opioid Misuse Strategy

1. Implement more effective person-centered and population-based strategies to reduce the risk of opioid use disorders, overdoses, inappropriate prescribing, and drug diversion;
2. Expand naloxone use, distribution, and access, when clinically appropriate;
3. Expand screening, diagnosis, and treatment of opioid use disorders, with an emphasis on increasing access to medication-assisted treatment; and
4. Increase the use of evidence-based practices for acute and chronic pain management.

*CMS is in the exploratory phase of identifying metrics to quantify and track progress in each priority area.*

Opioid-Prescribing Patterns of ED Physicians & Risk of Long-Term Use; *NEJM Feb 2017*

- **Findings:** The intensity of an ED physician’s opioid prescribing was positively associated with the probability that a patient would become a long-term opioid user over the subsequent 12 months.
  - “Frequent” prescribers, defined as those in the top quartile, had opioid prescribing rates 3.3 times that of “infrequent” prescribers (24.1 vs 7.3%; \( P < 0.001 \))
  - Patients treated by frequent prescribers were significantly more likely to become long-term opioid users and more likely to experience an adverse outcome related to the drugs, such as a fall or fracture.
- **Long-term opioid use** was defined as ≥180 days of opioids supplied in next 12 months.
- **NNH = 48:** For every 48 patients receiving an opioid Rx, it lead to 1 excess long-term user.
Opioid vs Nonopioid analgesics for Acute Extremity Pain in Emergency Department; JAMA Nov 7, 2017

- No statistically significant or clinically important differences in pain reduction at 2 hours among single-dose treatment ibuprofen & APAP with 3 opioid/APAP combinations

<table>
<thead>
<tr>
<th>Table 2. Numerical Rating Scale (NRS) Pain Scores and Decline in Pain Scores by Treatment Group</th>
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<tbody>
<tr>
<td><strong>NRS Pain Score, Mean (95% CI)</strong></td>
</tr>
<tr>
<td>No. of patients**</td>
</tr>
<tr>
<td>Primary endpoint: decline in score to 2 h</td>
</tr>
<tr>
<td>Baseline score</td>
</tr>
<tr>
<td>Score at 1 h</td>
</tr>
<tr>
<td>Score at 2 h</td>
</tr>
<tr>
<td>Decline in score to 1 h</td>
</tr>
</tbody>
</table>

**Characteristics of Initial Prescription Episodes & Likelihood of Long-Term Opioid Use – US, 2006-2015; MMWR, Mar 2017**

- Opioid naïve, cancer-free adults who received an opioid Rx were evaluated to determine likelihood of chronic opioid use
- Factors significantly associated with chronic opioid use in this population
  - Starting with the 3rd day, each additional day of medication supplied increased risk
  - A second prescription or refill doubled the risk for opioid use 1 year later
  - 700 morphine mg equivalent cumulative dose
  - An initial 30-day supply vs 1-day ↑ risk of long-term use to 35% from 6%
- The highest probability of continued opioid use at 1 & 3 years was observed among those started on a long-acting opioid and second those started on tramadol
An Educational Intervention Decreases Opioid Prescribing After General Surgical Operations; *Ann of Surgery, Mar 2017*

- Evaluated opioid prescribing and use in five outpatient surgical procedures
  - No standardized guidelines for opioid use post-operatively
  - Physician prescribing habits varied widely
  - Patients took only 28% of opioids prescribed

- Based on findings, suggested surgeons limit the number of prescribed pills based on surgery type
  - Partial mastectomy – 5 pills
  - Partial mastectomy with lymph-node biopsy – 10 pills
  - Gallbladder removal – 15 pills
  - Two types of hernia repair – 15 pills

- Patients educated that nonnarcotic painkillers, APAP and NSAIDs, could likely effectively manage pain
- Goal – discourage long-term opioid use & curb diversion of drugs to illegal users
- Results: Prescribed opioid pills dropped 53%; Only 1 of 224 patients requested Rx refill

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Opioid Oversupply Common After Surgery; *American Pain Society, May 2017*

- Study evaluated patterns of postsurgical opioid use and disposal
- Prospective cohort - same-day (40%) or inpatient (60%) orthopedic surgery July - Oct 2016.
  - Patients interviewed by phone 2 days, 2 weeks, & 4 weeks post discharge
  - 96% filled ≥ 1 opioid Rx with 85% containing IR oxycodone
  - Average of 80 pills prescribed
  - Mean number of days opioids taken was 7
  - 85% reported having unused pills at 1 month with an *avg of 30 pills remaining*
  - 16% knew how to properly store their meds with only 11% storing them securely
  - 22% knew how to dispose of the drugs
  - Only 4% disposed of the drugs

- “Some of these patients had conversations with hospital staff or pharmacists about opioids, though ultimately our system of care did not successfully convey the message about where to keep the pills and what to do with them when done.”
Pt-reported opioid analgesic requirements after elective hernia repair: A call for procedure-specific opioid administration strategies; Surgery, June 2017

- Observational study of high-volume, elective inguinal hernia operation
- All patients were prescribed 10 opioid analgesic tabs post op and counseled to reserve opioids for pain not controlled by nonopioid analgesics
- Followed patients with a questionnaire 2 – 3 weeks postop during postoperative visit
- Results:
  - 85.9% reported using ≤ 4 opioid tablets
  - 59.5% reported using no opioid analgesics postoperatively
  - None were taking opioids within 7 days of their postoperative appointment
  - 75.5% of patients who were employed reported missing ≤ 3 days work
  - 51.4% missed no work at all
- Conclusion: The majority of patients reported not requiring any opioid analgesics, and nearly all of those who did used < 5 tablets.

Arkansas Prescription Monitoring Program – Act 820

- To amend the prescription drug monitoring program to mandate prescribers check the PDMP when prescribing certain medications.

(2)(A) A prescriber shall check the information in the PDMP when prescribing:
  (i) An opioid from CII or CIII for every time prescribing the medication to a patient; and
  (ii) A benzodiazepine medication for the first time prescribing the medication to a patient.
(B) A licensing board that licenses practitioners who have the authority to prescribe shall adopt rules requiring the practitioners to check the information in the PDMP as described
  (i) A practitioner who purposely fails to access the PDMP as required by 20-7-604(d) is subject to disciplinary action by the licensing board of the practitioner.

April 3, 2017 – Governor Hutchinson signs HB 339 into law becoming Act 820.
Aug 1, 2017 – Effective Date
Arkansas Prescription Monitoring Program – Act 820

(C) This subdivision (d)(2) does NOT apply to:

(i) A practitioner administering a controlled substance:
(a) Immediately before or during surgery;
(b) During recovery from a surgery while in a healthcare facility;
(c) In a healthcare facility; or
(d) Necessary to treat a patient in an emergency situation at the scene of an emergency, in a licensed ground ambulance, or in the ICU of a licensed hospital;

(ii) A practitioner prescribing or administering a controlled substance to:
(a) A palliative care or hospice patient; or
(b) A resident in a licensed nursing home facility; or

(iii) Situations in which the PDMP is not accessible due to technological or electrical failure.

(3) A licensed oncologist shall check the PDMP when prescribing to a patient on an initial malignant episodic diagnosis and every 3 months following the diagnosis while continuing treatment.

Arkansas Prescription Monitoring Program – Act 820

- Allows Department of Health to send quarterly reports to prescribers & dispensers
- After 12 months if information still looks suspect, the Dept of Health can report to licensing boards
- Push for same day and even real time reporting
- Expanded the PDMP oversight board with a person from the Medical Board & Dental Board
- Allows for exemptions to the law through the Department of Health with legislative approval
- Allows licensure boards to adopt rules limiting the quantities of medications that can be prescribed or dispensed.
AR Medical Board – Regulation 41

- A healthcare provider shall check the information in the PDMP when prescribing:
  - An opioid from Schedule II or Schedule III for every time prescribing the medication to a patient; and
  - A benzodiazepine medication for the first time prescribing the medication to a patient.
- A licensed oncologist shall check the PDMP when prescribing to a patient on an initial malignant episodic diagnosis and every 3 months following the diagnosis while continuing treatment.
- A healthcare provider must document in the patient record that the PDMP was checked.
- A healthcare provider who purposely fails to access the PDMP as required is subject to disciplinary action by the AR State Medical Board.

FDA Commissioner on Opioid Epidemic:

“Patients must be prescribed opioids only for durations of treatment that closely match their clinical circumstances and that do not expose them unnecessarily to prolonged use, which increases the risk of opioid addiction.”

“Certainly, most acute pain situations such as surgery or trauma do not require a 30-day supply.”

“This recommendation, if followed, will reduce the likelihood that the patient may inadvertently become addicted, and it will reduce the potential for diversion of opioid to others.”

FDA Commissioner Scott Gottlieb, M.D. May 2017
Barriers to Pain Guideline Compliance

- Inadequate training & knowledge of pain management by providers
  - Managing acute on chronic pain
  - Using non-opioids
  - Discussing risks of opioids
  - Tapering opioids
- Unrealistic patient expectations
- Inadequate access to alternative, appropriate tx
  - Inadequate reimbursement
  - Treatment too costly
  - Inadequate availability of alternative treatment

Barriers to Pain Guideline Compliance – Our Culture

- Marketing to promote opioid use
- Regulatory pressure – HCAHPS, TJC, etc.
- Patient Satisfaction vs Patient Safety
- Pain is the 5th Vital Sign
- “Don’t let my patient be in pain”
- Liberal pain protocols
Overcoming Barriers to Pain Guideline Compliance

- Set Goals & Expectations
  - There are alternatives to opioids for chronic pain management
  - “Not going to get your pain to zero”
- Educate About Risks
  - Side effects and harms
  - Potential for dependence & addiction
  - Public health campaigns

Key Take Aways

- Utilize Prescription Drug Monitoring Program
- Mindful of diagnosis and risk vs benefit before initiating opioids
- Limit pill count and duration of therapy for acute pain
- Use lowest effective dose
- Identify high risk patients (high doses, opioid & benzo combo)
- Patient Assistance – Education, Addiction Programs
  - Use Case Managers to follow high risk patients
  - Have PCP provide pain contract to local EDs for patients with frequent visits
Key Take Aways

- Provide cautious, evidence-based opioid prescribing and dispensing
- Talk with patients about therapeutic goals including increased activity and improved quality of life, not just pain relief.
- Talk with patients about opioid risks, realistic benefits, and prescribing ground rules.
- Don't initiate chronic opioid therapy before considering safer alternatives such as primary disease management, physical therapy and exercise.
- Don't continue opioid in patients who show no progress toward treatment goals defined by increased function and reduced pain.
- Don't abandon patients with a prescription drug problem. Offer help or referral to treat substance abuse.
- Prescribe / Dispense Naloxone to high-risk patients

Battling the Opioid Epidemic –Naloxone

Kirk R. Lane
Arkansas State Drug Director
&
John Clay Kirtley, PharmD
Executive Director
Arkansas State Board of Pharmacy
Overdose Treatment – What is Naloxone?

- Known by several names: (Narcan®, Evzio®, Naloxone)
  Naloxone is the actual generic name of the drug
- Naloxone is an Opioid Antagonist meaning that it is a drug used to reverse/block the effects of opioids.
- Naloxone is safe and effective.
- Naloxone has no effect on non-opioid overdoses.

Naloxone

- Act 284 of 2017 by Senators Bledsoe and Eads as well as Representative Boyd will allow easier access to naloxone:

  “Pursuant to a statewide protocol, a pharmacist may initiate therapy and administer or dispense, or both, Naloxone”
Naloxone Protocol

Published on the
Arkansas State Board of Pharmacy
and
Arkansas Pharmacists Association Websites

Arkansas Naloxone Protocol

Naloxone hydrochloride is an opioid antagonist that reverses or blocks the effects of opioid analgesics. Timely administration of naloxone in the event of an opioid overdose can stop the potentially fatal respiratory depression that is linked with an opioid overdose.

I. Purpose

The purpose of this standing order is to reduce the morbidity and mortality of opioid overdoses in Arkansas by allowing Arkansas-licensed pharmacists to initiate therapy including ordering, dispensing and/or administering naloxone, along with any necessary supplies for administration, to eligible persons who are at risk of experiencing an opioid-related overdose, or who are family members, friends, or others who are in a position to assist a person at risk of experiencing an opioid-related overdose.

II. Authority

This standing order is issued pursuant to Ark. Code Ann. § 17-102-101(6)(c) to authorize licensed pharmacists in Arkansas to order, dispense and/or administer naloxone according to the provisions of Arkansas Code § 17-102-101(6) and the requirements of this standing order.

III. Dispensing Guidelines

A. Eligibility Criteria:

An Arkansas-licensed pharmacist may initiate therapy to an individual who is at increased risk of an opioid overdose or who is a family member, friend, or other person who is in a position to assist an individual with an increased risk of an opioid overdose is eligible to receive naloxone.

Factors that may place an individual at an increased risk of opioid overdose include:

a. Opioid use including prescription or illicit drugs
b. History of opioid intoxication, overdose, and/or emergency medical care for acute opioid poisoning
c. High opioid dose prescribed (>60 morphine milligram equivalents daily)
d. Suspected or known concurrent alcohol use
  e. Concurrent prescriptions or use of benzodiazepines, tricyclic anti-depressants (TCA’s), skeletal muscle relaxants and other medications
f. Treatment of opioid use disorder with either buprenorphine or methadone.
  g. Concurrent history of smoking/COPD or other respiratory illnesses or obstruction

B. Contraindications:

Do not administer naloxone to an individual with a known hypersensitivity to naloxone or any of the other components.

C. Product Availability:

Naloxone products that may be dispensed/provided under this standing order:

1. Narcan® Nasal Spray (naloxone HCl) 4 mg/0.1 mL Nasal Spray Directions for use: Administer one (1) spray of Narcan® in one nostril. Repeat after three (3) minutes if no response.

2. Naloxone HCl Solution 1 mg/mL in a 2 mL pre-filled Luer-Lock Syringe Directions for use: Spray 1 mL (1/2 of syringe) into each nostril. Repeat after three (3) minutes if no response.

3. Exalgo® (naloxone HCl injection) 0.4 mg/0.4 mL autoinjector Directions for use: Follow audio instruction from device. Place on thigh and inject 0.4 mL. Repeat after three (3) minutes if no response.

D. Warnings/Precautions:

1. Abrupt reversal of opioid effects in a person with a physical dependence on opioids can cause acute withdrawal symptoms such as, but not limited to, the following:
   - nausea/vomiting, diarrhea, fever, body aches, sweating, sneezing, yawning, shivering/trembling, irritability, chills, anxiety, combativeness/disorientation

2. Abruptly reversing the effects of opioids could result in a pain crisis due to neutralization of the analgesic effects of the opioid.

3. Naloxone should be used with caution in patients with a history of seizures and/or cardiovascular disease.

4. Naloxone will have no effect on respiratory depression caused from non-opioid substances.

5. Whenever naloxone is administered to reverse a potential opioid overdose, medical follow-up is needed as naloxone’s effects wear off quickly resulting in the need for further medical care. Naloxone should be considered a temporary overdose reversal agent with the potential need for multiple doses under acute medical care.

Primary Care Physician’s name and contact information if for own use. If you do not have a primary care provider you should consult a physician of your choice.

Protocol Approved by the Arkansas State Medical Board and the Arkansas State Board of Pharmacy. The prescriber of record for any pharmacy-related paperwork is Dr. Nathaniel Smith, MD, Director and State Health Officer, Arkansas Department of Health.
20-13-1604 Opioid antagonist – Immunity-ACT 1222 of 2015

(a) A healthcare professional acting in good faith may directly or by standing order prescribe and dispense an opioid antagonist to:
   (5) A first responder;
   (6) A law enforcement officer or agency; or

(b) A person acting in good faith who reasonably believes that another person is experiencing an opioid-related drug overdose may administer an opioid antagonist that was prescribed and dispensed under section (a) of this section.

(c) The following individuals are immune from civil liability, criminal liability, or professional sanctions for administering, prescribing, or dispensing an opioid antagonist under this section:

   (3) A person other than a healthcare professional who administers an opioid antagonist under subsection (b) of this section.

How do opioids affect breathing?

**OVERDOSE**

Opioid Receptors

Opioid
Naloxone Restores Breathing

Opioid Receptors
Naloxone occupies Opioid Receptors Displacing the Opioid and Reversing the Overdose

*note that the opioid is still present thus the need for further medical treatment as Naloxone wears off

Opioid Basics

- Naloxone knocks the opioid off the opiate receptor
- Only blocks opioid receptors; no opioids = no effect
- Not harmful if no opioids in system
- Temporarily takes away the “high,” giving the person the chance to breathe
- Naloxone works in 1 to 3 minutes and lasts 30 to 90 minutes
- Naloxone can neither be abused nor cause overdose
- Only known contraindication is sensitivity, which is rare
- Too much Naloxone can cause withdrawal symptoms such as:
  - Nausea/Vomiting
  - Diarrhea
  - Muscle Discomfort
  - Disorientation
  - Combative
  - Chills
Identifying an Opioid Overdose

The despair here echoes across the country. But the opioid crisis is particularly acute in Ohio.

Last year, a record 3,050 people in the state died of drug overdoses.

Overdoses from the potent opioid fentanyl more than doubled, to 1,155.

Opioid Basics

<table>
<thead>
<tr>
<th>REALLY HIGH</th>
<th>OVERDOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupils pinned</td>
<td>Pupils pinned</td>
</tr>
<tr>
<td>Nodding, but arousable (responds to sternum rub)</td>
<td>Not arousable (no response to sternum rub)</td>
</tr>
<tr>
<td>Speech is slurred</td>
<td>Very infrequent or no breathing</td>
</tr>
<tr>
<td>Sleepy, intoxicated, but breathing</td>
<td>Breathing slow or stopped</td>
</tr>
<tr>
<td>· 8 or more times per minute</td>
<td>· Less than 8 times per minute</td>
</tr>
<tr>
<td>· May hear choking sounds or gurgling/noisy noises</td>
<td>· Blue lips, blue fingers/feet</td>
</tr>
<tr>
<td>Stimulate and observe</td>
<td>Rescue breathe + give naloxone</td>
</tr>
</tbody>
</table>

5 Minutes Is All It Takes To Identify and Reverse an Overdose

LEARN TO SAVE A LIFE IN UNDER 10 MINUTES!

Harm Reduction Coalition’s Eliza Wheeler says “Access to naloxone should be low-threshold and does not require extensive instruction.” New research says: brief is effective.

New evidence released today suggests that 5-10 minutes of education is all it takes to effectively recognize and respond to an overdose with the lifesaving drug naloxone. The findings, published in the journal Drug and Alcohol Dependence, contribute to a growing body of evidence that brief overdose education to opioid users is sufficient for effective naloxone distribution.

For the past 12 years the Drug Overdose Prevention and Education Project (DOPE) has been distributing naloxone and educating people on how to use it. The benefit of naloxone is that it is a short acting opioid antagonist which rapidly reverses the life-threatening depression of the central nervous system and respiratory system stemming from an opioid overdose, allowing the person to breathe normally. Harm Reduction Coalition’s DOPE Project distributes naloxone through low-threshold drug services such as syringe access programs in San Francisco, with education lasting between 5-10 minutes. The aim of the study was to determine if a 5-10 minute brief intervention was sufficient to educate people on how recognize and manage an overdose and how to respond by administering naloxone.
### Responding to an Opioid Overdose

1. Stimulate
2. Alert EMS
3. Administer naloxone
4. CPR – Rescue breathing/ventilations
5. Repeat 3 & 4, if necessary
6. Recovery position, if breathing

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### Respond: Stimulate and Alert EMS

1. Stimulate victim with a **sternal rub**

2. If no response, delirious, or altered consciousness, call for **EMS support**
Respond: Administer Naloxone

3. If no response from stimulation,
   - *give naloxone*
   - Kit contains either:
     - Self contained naloxone nasal spray or:
     - One (1) individual pre-filled syringes of Naloxone with One (1) mucosal atomizer (nose pieces/spray device)

Naloxone Intervention
Respond: Rescue Breathing

4. Give *rescue breaths*, if you have proper safety equipment and training
   - Place 1 hand on the chin and tilt head back to open airway
   - Make sure the airway is clear and remove anything in their mouth
   - Pinch the nose closed
   - Give 2 slow rescue breaths into the mouth
   - Use a rescue breathing mask if available
   - Use a bag valve mask if you are trained
   - Make sure the chest (not the stomach) is rising with the breaths
   - Give 1 breath every 5 seconds until the person can breath on their own
   - If no pulse, start CPR

Respond: Repeat 3 & 4 if Necessary

5. After 3-5 minutes, if the victim is still unresponsive with slow or no breathing, *administer another dose* of naloxone and *continue rescue breathing*. 
Respond: Recovery Position

6. Recovery position, when breathing is restored

Review: Respond to Opioid Overdose

1. Stimulate
2. Alert EMS
3. Administer naloxone
4. CPR – Rescue breathing/ventilations
5. Repeat 3 & 4, if necessary
6. Recovery position, if breathing
Respond: Talk to EMS

Make sure you tell EMS if you have administered Naloxone upon their arrival.

Arkansas Naloxone Saves by Law Enforcement

<table>
<thead>
<tr>
<th>DATE</th>
<th>REPORTING AGENCY</th>
<th>LOCATION</th>
<th>SEX</th>
<th>RACE</th>
<th>AGE</th>
<th>TYPE DRUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/2/2016</td>
<td>BENTON POLICE DEPARTMENT</td>
<td>BENTON</td>
<td>MALE</td>
<td>W</td>
<td>36</td>
<td>HEROIN</td>
</tr>
<tr>
<td>5/11/2017</td>
<td>PULASKI COUNTY SHERIFFS OFFICE</td>
<td>LITTLE ROCK</td>
<td>MALE</td>
<td>W</td>
<td>51</td>
<td>FENTANYL</td>
</tr>
<tr>
<td>5/12/2017</td>
<td>INDEPENDENCE COUNTY SHERIFFS OFFICE</td>
<td>BATESVILLE</td>
<td>MALE</td>
<td>W</td>
<td>20</td>
<td>UNK OPIOID</td>
</tr>
<tr>
<td>5/16/2017</td>
<td>PULASKI COUNTY SHERIFFS OFFICE</td>
<td>NORTH LITTLE ROCK</td>
<td>MALE</td>
<td>W</td>
<td>33</td>
<td>UNK OPIOID</td>
</tr>
<tr>
<td>5/18/2017</td>
<td>INDEPENDENCE COUNTY SHERIFFS OFFICE</td>
<td>OIL TROUGH</td>
<td>MALE</td>
<td>W</td>
<td>59</td>
<td>UNK OPIOID</td>
</tr>
<tr>
<td>5/20/2017</td>
<td>MAUMELLE POLICE DEPARTMENT</td>
<td>MAUMELLE</td>
<td>MALE</td>
<td>W</td>
<td>23</td>
<td>HEROIN</td>
</tr>
<tr>
<td>6/2/2017</td>
<td>INDEPENDENCE COUNTY SHERIFFS OFFICE</td>
<td>NEWARK</td>
<td>MALE</td>
<td>W</td>
<td>34</td>
<td>UNK OPIOID</td>
</tr>
<tr>
<td>6/2/2017</td>
<td>PULASKI COUNTY SHERIFFS OFFICE</td>
<td>NORTH LITTLE ROCK</td>
<td>MALE</td>
<td>W</td>
<td>52</td>
<td>OXYCODONE</td>
</tr>
<tr>
<td>7/31/2017</td>
<td>MAUMELLE POLICE DEPARTMENT</td>
<td>MAUMELLE</td>
<td>MALE</td>
<td>W</td>
<td>25</td>
<td>HEROIN</td>
</tr>
<tr>
<td>8/9/2017</td>
<td>INDEPENDENCE COUNTY SHERIFFS OFFICE</td>
<td>BATESVILLE</td>
<td>MALE</td>
<td>W</td>
<td>40</td>
<td>UNK OPIOID</td>
</tr>
<tr>
<td>8/12/2017</td>
<td>MAUMELLE POLICE DEPARTMENT</td>
<td>MAUMELLE</td>
<td>FEMALE</td>
<td>W</td>
<td>18</td>
<td>MIXED DRUG (UNK OPIOID)</td>
</tr>
<tr>
<td>8/15/2017</td>
<td>ARKANSAS STATE POLICE</td>
<td>NORMAN</td>
<td>FEMALE</td>
<td>W</td>
<td>22</td>
<td>MIXED DRUG (UNK OPIOID)</td>
</tr>
<tr>
<td>8/17/2017</td>
<td>ARKANSAS STATE POLICE</td>
<td>(RURAL)OUACHITA</td>
<td>FEMALE</td>
<td>W</td>
<td>44</td>
<td>MIXED DRUG (UNK OPIOID)</td>
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<tr>
<td>9/4/2017</td>
<td>INDEPENDENCE COUNTY SHERIFFS OFFICE</td>
<td>BATESVILLE</td>
<td>FEMALE</td>
<td>W</td>
<td>20</td>
<td>MIXED DRUG (UNK OPIOID)</td>
</tr>
<tr>
<td>9/24/2017</td>
<td>INDEPENDENCE COUNTY SHERIFFS OFFICE</td>
<td>BRADFORD</td>
<td>FEMALE</td>
<td>W</td>
<td>47</td>
<td>XANAX/MIXED DRUGS</td>
</tr>
<tr>
<td>10/27/17</td>
<td>SALINE COUNTY SHERIFFS OFFICE</td>
<td>ALEXANDER</td>
<td>MALE</td>
<td>W</td>
<td>23</td>
<td>Meth/Suboxone</td>
</tr>
</tbody>
</table>
Self Assessment – MME Calculation

Calculating morphine milligram equivalents (MME)

<table>
<thead>
<tr>
<th>OPID</th>
<th>CONVERSION FACTOR</th>
<th>FILL DATE</th>
<th>PRODUCT STR FORM</th>
<th>CITY</th>
<th>DAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>0.15</td>
<td>6/15/2017</td>
<td>OXYCODONE HCL 15 MG TABLET</td>
<td>56</td>
<td>20</td>
</tr>
<tr>
<td>Fentanyl transdermal (in mg/hr)</td>
<td>2.4</td>
<td>6/15/2017</td>
<td>OXYCODONE HCL 10 MG TABLET</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>1</td>
<td>6/14/2017</td>
<td>ZOLPIDEM TARTRATE 10 MG TABLET</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>4</td>
<td>5/22/2017</td>
<td>ZOLPIDEM TARTRATE 10 MG TABLET</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>1-20 mg/day</td>
<td>4</td>
<td>5/11/2017</td>
<td>OXYCODONE HCL 10 MG TABLET</td>
<td>14</td>
<td>29</td>
</tr>
<tr>
<td>21-40 mg/day</td>
<td>8</td>
<td>5/11/2017</td>
<td>OXYCODONE HCL 15 MG TABLET</td>
<td>56</td>
<td>28</td>
</tr>
<tr>
<td>41-60 mg/day</td>
<td>10</td>
<td>4/22/2017</td>
<td>ZOLPIDEM TARTRATE 10 MG TABLET</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>100 mg/day</td>
<td>12</td>
<td>5/19/2017</td>
<td>DROPHABINOL 2.5 MG CAPSULE</td>
<td>60</td>
<td>10</td>
</tr>
<tr>
<td>Morphine</td>
<td>1</td>
<td>5/5/2017</td>
<td>OXYCODONE HCL 5 MG TABLET</td>
<td>168</td>
<td>28</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>1.5</td>
<td>5/15/2017</td>
<td>OXYCODONE HCL 10 MG TABLET</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>3</td>
<td>4/6/2017</td>
<td>HYDROCODON-ACETAMINOPH 7.5-325</td>
<td>30</td>
<td>6</td>
</tr>
</tbody>
</table>

These dose conversions are estimated and cannot account for all individual differences in genetics and pharmacokinetics.

What is patient’s current MME/Daily dose?
Any concerns you would want to address?

Self Assessment Questions

1. **TRUE** or **FALSE** - You should counsel patients that they are not at risk of an accidental overdose if they take opioid and benzodiazepine medications as prescribed?

2. On a 10 point pain scale, studies show opioids are effective in reducing chronic pain on average by how many points?  
   A) 1-2    B) 3-4    C) 5-6    D) 7-8

3. **TRUE** or **FALSE** - Pain management is tied to value-based payment for acute care hospitals through HCAHPS?

4. **TRUE** or **FALSE** - AR law requires that physicians check the AR PDMP every time they prescribe a CII, CIII or benzodiazepine not administered in a health care facility?

5. Illegal users consume as much as **X%** of legitimately prescribed opioids?  
   A) 20%  B) 50%  C) 70%  D) 90%
Additional Resources

- [https://www.cdc.gov/drugoverdose/data/overdose.html](https://www.cdc.gov/drugoverdose/data/overdose.html)
- [Opioid-Prescribing Patterns of ED Physicians & Risk of Long-Term Use; NEJM Feb 2017](https://www.cdc.gov/drugoverdose/data/overdose.html)
- [Single-dose opioid vs nonopioid analgesics for acute extremity pain in ED; JAMA Nov 2017](https://www.cdc.gov/drugoverdose/data/overdose.html)
- An educational intervention decreases opioid prescribing after general surgical operations; Ann of Surgery, Mar 2017
- Patient-reported opioid analgesic requirements after elective inguinal hernia repair: A call for procedure-specific opioid-administration strategies; Surgery, June 2017
- [http://www.artakeback.org/](http://www.artakeback.org/)
- [https://www.fda.gov/Drugs/NewsEvents/ucm540845.htm](https://www.fda.gov/Drugs/NewsEvents/ucm540845.htm)

Thank You for Attending